Transportation Interim Committee
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MAPPING THE ROAD TO MONTANA CONSTRUCTION PROJECTS

INTRODUCTION

In 2019, there were roughly 240 various road, bridge, and transportation improvements underway throughout the construction season. While it sometimes feels like the orange cones and barricades pop up overnight, there are years – and years – of planning behind nearly every project during peak season. There are also millions – and millions – of dollars and thousands of jobs pushing those projects.

Montana roads open to public travel consist of 73,567 miles, of which 12,927 miles are on the Montana Transportation Commission designated highway system. Keeping up with all of those miles requires planning and prioritization. With that in mind, building a road involves years of research, planning, design, engineering, and budgeting. It can take seven to eight years to complete a road project, according to the Montana Department of Transportation (MDT).

Montana's highway construction program is primarily funded with federal dollars, while state funds are used to cover the required match for the federal program and support snow plowing, chip sealing, and other highway maintenance needs. The typical federal to state matching ratio is about 87% generated from federal funds and 13% from state sources. MDT doesn't receive funding from the general fund. Most of those state dollars come from Montana's 31.5-cent-per-gallon fuel tax, 29.25-cent-per-gallon diesel tax, and gross vehicle weight fees.

The most expensive project in 2019 was for $37 million in Broadwater County. It includes the reconstruction of a 3.5-mile section of Highway 287 in the Toston area and the replacement of three existing bridges. Second in line is a $19 million project called the Culbertson-East project along U.S. Highway 2. It includes rehabilitating about 10.7 miles, widening the roadway, and replacing the Clover Creek Bridge. The department maintains an Active Projects Map that allows all projects to be reviewed by year, type, status, location and cost.

MDT estimates contractor payments for 2019 at roughly $350 million going to about 78 prime contractors. Between 2009 and 2018, design and construction of transportation-related infrastructure resulted in more than $3.4 billion in payments to contractors, consultants, and utility companies. During a similar 10-

year period, MDT construction program full-time-equivalent (FTE) dropped from about 1,000 to just under 800, meaning more funding is being directed to contractors.

Over the last four years, MDT awarded 447 construction projects totaling nearly $1.2 billion.

HOW DID WE GET HERE?

The Montana Department of Transportation (MDT), its staff and administrators, and the Transportation Commission, along with a great deal of stakeholder and public input, determine what construction projects are completed in Montana and how limited funding is shared to repair and improve Montana's major highways. However, it's not as simple as a state agency and an appointed commission holding a couple meetings, making a plan, and implementing it.

Montana's overall transportation improvement policy direction is set out in a statewide plan called TranPlanMT. TranPlanMT is developed based on input from stakeholders and citizens during a year-long process (with updates at regular intervals), where goals and strategies for improvement are designed. The plan provides policy direction for operating, preserving, and improving Montana's transportation system over a 20-year period. It serves as the guiding document for decisions, especially those related to investing Montana's transportation dollars.

TranPlanMT sets the direction, and the next step in the process is determining what can be achieved given the money available today and anticipated tomorrow. MDT uses a Performance Programming Process (Px3) to determine the most cost-effective distribution of that money for highway systems and improvement categories. In general, transportation needs outpace revenues by a 3 to1 ratio in Montana, making Px3 a critical phase of the progression.

With Px3, the MDT analyzes various funding alternatives and tracks the actual performance of the highway system after investments are made. The Px3 process is tied to performance for pavement, congestion, bridges, and safety. The outcome is a data-driven analysis that recommends levels of funding by district, system, and type of work.

- **District**: Montana has five commission districts defined in 2-15-2502, MCA. The districts are generally known as Missoula, Butte, Great Falls, Glendive, and Billings. Each district has its own unique challenges, and district administrators focus on the individual transportation needs within their jurisdiction. These districts are also represented on Montana's Transportation Commission.
- **System**: The highway systems allocated funding through Px3 are the interstate, national highways, and primary highways. This involves about 70% of MDT's project funding, while the other 30% in funding allocations are driven by a combination of state and federal laws.
- **Type of Work**: The three major categories of road work are reconstruction, rehabilitation, and resurfacing. Bridge and safety work are also tied to performance objectives.

Using the Px3 analysis, MDT's district administrators then propose projects, for consideration and approval by the Transportation Commission, based on public input and roadway system need, that conform to these overall funding distribution decisions.

STATEWIDE PROGRAM PLANNING

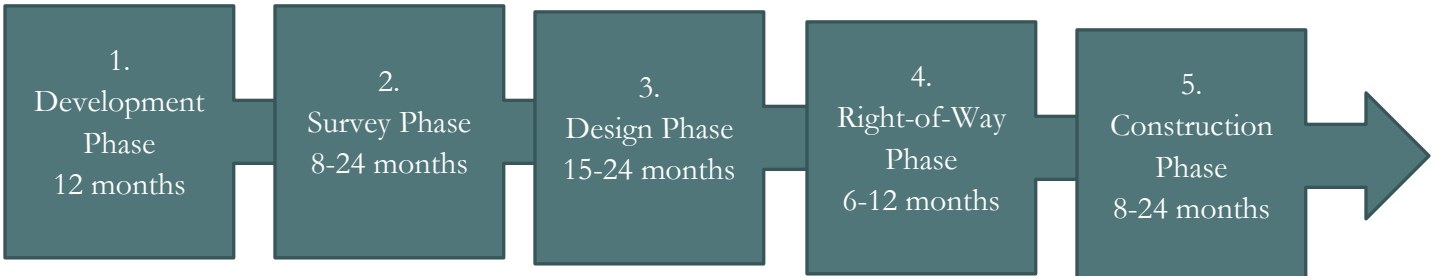
The next step is the development of the annual Statewide Transportation Improvement Program (STIP). The STIP outlines planned projects, estimated costs, and funding sources over a five-year period. It is required to receive federal transportation dollars. The annual STIP identifies more specific transportation projects, estimated completion year, and a general description of the proposed scope of work.

The most recent STIP identifies what projects should be completed to address Montana's transportation needs for fiscal years 2019 through 2023. During a formal STIP comment period, and throughout the year, MDT engages the public. The projects in the STIP are developed using nominations from the five MDT districts and program managers. Nominations are then advanced based on various consideration such as surface condition, rideability, traffic safety, and geometrics.

The STIP also includes federally funded projects administered by others, like the Tribal Transportation Program. A federal Tribal Transportation Program (25 CFR Part 170) addresses the transportation needs of federally recognized Indian Tribes and is the funding source for planning, designing, construction, and maintenance activities on Montana's reservations. The program is jointly administered by the Federal Highway Administration's Office of Federal Lands Highway and the Bureau of Indian Affairs. The Tribal Transportation Program was funded at $465 million in FY16 with annual increases of $10 million/FY through 2020.

Coupled with the STIP is the Tentative Construction Program (TCP). This is a project scheduling tool that further identifies the anticipated year each approved highway project will be let to construction within the next five years. Using the program, the MDT can annually adjust its schedule to match with any funding delays or constraints. The program is largely a map of the state that includes tentative construction projects and estimated letting dates and ensures that MDT fully obligates its federal funding each year.

MDT offers a timeline of road planning and construction that captures the steps discussed previously.



1. MDT receives project nominations analyzes the proposed projects for inclusion into the STIP.

2. Survey work also includes environmental, engineering, air quality and other studies.

3. MDT develops detailed designs, including electrical plans, bridges, signing, and other aspects.

4. MDT obtains regulatory permits and negotiates agreements with property owners.

5. MDT advertises for bids. Once MDT accepts a bid, it determines if the contractor meets requirements. If it does, the Transportation Commission awards the contract, and construction begins.

Another tool MDT uses in certain situations to help inform the project nomination process is a Corridor Planning Study. Corridor Planning Studies are more focused on specific areas and take an even more in-depth look at a road or need identified by the public and stakeholders. These studies also identify potential opportunities for addressing those needs given funding availability. For example, the Billings Area 1-90 Corridor Study was completed by MDT along with the City of Billings, Yellowstone County, and the Federal Highway Administration to review about 22 miles of I-90 beginning at the Laurel Interchange and ending west of the Pinehills Interchange. The study examined geometric characteristics, crash history, and existing and projected operational characteristics of I-90 and interchanges. It also looked at existing and projected physical constraints, land uses, and environmental resources within the area. The study resulted in a package of short-term and long-term recommendations to address needs on the I-90 corridor through 2035.

ROLE OF TRANSPORTATION COMMISSION

Throughout the processes discussed in this report Montana's Transportation Commission is making decisions and providing guidance to the MDT. The Transportation Commission is a quasi-judicial board consisting of five members, each of whom is appointed by the Governor and confirmed by the Senate for a four-year term. The commission establishes priorities and selects and designates segments for construction and reconstruction on the national highway system, the primary highway system, the secondary highway system, the urban highway system, and state highways. This, however, is done in consultation with the department and local governments.

The commission plays a critical role in selecting and prioritizing projects for construction and maintenance. They award monthly contracts and allocate federal-aid highway funds. Proposed highway construction projects are discussed during regular commission meetings. Once the Transportation Commission approves a project, it is included or amended into the STIP and advanced to the Federal Highway Administration for STIP approval. Once approved and included in the STIP, federal funds are included in the program, and project development begins. The commission also amends the STIP to include new projects.

MONEY TALKS

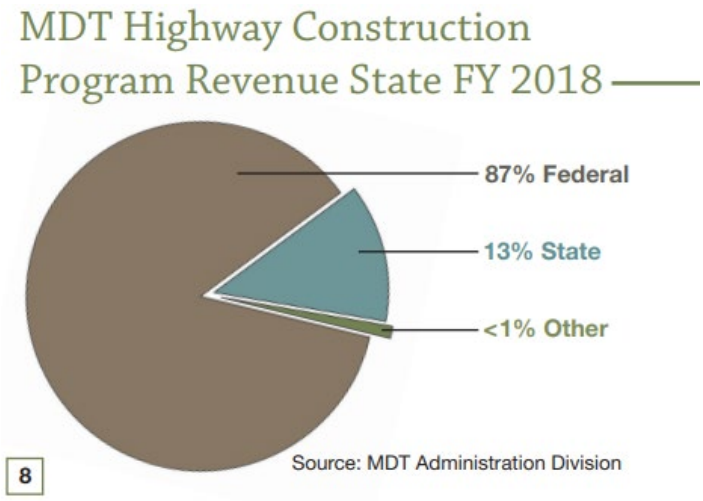
Montana's roads and bridges are mainly funded through a combination of federal (88.5%) and state/local (11.5%) funding sources. Federal funds generally require a match of around 13%. State road and bridge revenues are generated through fuel taxes, gross vehicle weight fees, and other related fees. These revenues are deposited into a Highway State Special Revenue Account and are constitutionally restricted for:

- payment of obligations incurred for construction, reconstruction, repair, operation, and maintenance of public highways, streets, roads, and bridges;

- payment of county, city, and town obligations on streets, roads, and bridges; and

- enforcement of highway safety, driver education, tourist promotion, and administrative collection costs.

Montana state fuel tax rates increased from 27 cents in July 2017 for the first time since 1994. The increase is a result of the Montana Legislature's enactment of House Bill No. 473. The Bridge and Road Safety and Accountability Act increases Montana's fuel tax rate to:



- beginning in July 2017, $0.315 per gallon for gasoline and $0.2925 per gallon for special fuel;
- beginning July 2019, $0.32 per gallon for gasoline and $0.2945 per gallon for special fuel;
- beginning July 2021, $0.325 per gallon for gasoline and $0.2955 per gallon for special fuel; and
- beginning July 2022, $0.33 per gallon for gasoline and $0.2975 per gallon for special fuel.

The increased fuel taxes are deposited into a new Bridge and Road Safety and Accountability Restricted Account. After reductions for initial distributions that include refunds, distributor payments, and non-highway fuel uses, MDT receives 35% of the taxes while the remaining 65% is allocated to local governments. Each year the MDT then determines fuel tax allocations distributed to Montana's cities, counties, and consolidated city-county governments. The fuel tax allocations for 2019 are available here. Local government matching funds, a minimum of 5%, are required.

Montana receives about 1% of the federal highway funding apportioned to states through the Federal Highway Administration. Funding is apportioned to specific funding programs with specific eligibility and match criteria. There are also national performance goals for the national highway system and for highway safety and bridges that states must demonstrate progress toward in using federal funds. The program is a cost-reimbursement program meaning the state spends its funds first and then submits a request for reimbursement to the Federal Highway Administration, with appropriate documentation to meet federal requirements. Federal-state matching ratios vary by program, but predominantly the share is 87% to 13% federal to state participation for most projects.

Federal funds are MDT's bread and butter for improving and preserving roads and bridges, while state funds match the federal program and support snow plowing, chip sealing, and other highway maintenance needs. The recent increase in the gas tax provides MDT with enough cash flow currently to sustain the match for the federal-aid construction program, which was in jeopardy prior to the 2017 legislative session, according to MDT. It does not, however, provide sufficient funding long-term for MDT to expand infrastructure or to implement a more robust state-funded construction program. MDT has stated it is committed to diligently managing its cash flow to deal as best it can with the funding challenges at both the state and federal levels.

Snapshot of FY 2019 Road Construction Projects				
Project	**Background**	**Bid**	**Contractor**	**Status**
Huson East Frenchtown	11-mile reconstruction of the Frenchtown Frontage Road Route 574 from the I-90 Huson Interchange to its intersection with Hwy 93. Includes 4-foot shoulders, new drainage pipes, new guardrail and signs, turning lanes into high school, and an 11-mile multi-use path with solar-powered, rapid flashing beacons at the Frenchtown Pond Park. Solar radar speed detection signs added in the high school area.	$12.2 million	Schellinger	Fall 2019
Roscoe North	Continued widening and reconstruction of roadway in Hwy 78 corridor and includes a bridge replacement over East Rosebud Creek. New bridge constructed off alignment, leaving the old structure as the route for traffic throughout construction. New road has four- to six-foot shoulders.	$8.6 million	Sletten	Spring 2020
York Road Roundabout	Due to frequent crashes at the two-way stop rural intersection of York Road and Lake Helena Drive, a roundabout was constructed.	$2 million	Bullock	Fall 2019
Poplar Main	Constructed new pavement section consisting of pulverized cement treated base and new pavement on US 2 through Poplar. Easterly 2/3 were reconstructed to include new curb and gutter and new roundabouts at 5th Avenue and Kirn Road. Safety enhancements include rapid flashing beacons and raised median pedestrian refuge islands at two school crossings.	$14.2 million	Knife River	Spring 2020
Rocker Interchange Improvements	New roundabout, 491 linear feet of retaining wall, intersection improvements, upgraded water lines, and new storm water sewer lines west of Butte on I-15/90. Over 10,000 square yards of Portland Cement Concrete Pavement and over 6,300 feet of curb and gutter were placed.	$6 million	Missouri River Contracting	Summer 2020